Response to Arguments

1.   Applicant's arguments filed on July 21, 2008 have been fully considered but they are not persuasive.

2.   The applicant argues that ***Lee fails to teach or suggest all of the limitations claimed in independent claim 1.***

3.   The examiner respectfully disagrees.

4.   Lee et al. discloses a plurality of location areas that are determined so that the paging load is distributed among the plurality of location areas such that a partial paging load respective to each cell of the multicell wireless communication system is less than a respective load limit. Boundaries of the location areas are chosen to substantially minimize registration load within the multicell wireless communication system such that the overall cost of the wireless communication system can be minimized. A graph partitioning algorithm, such as a modified KL algorithm may be used to create the location areas and set the boundaries. See Abstract.

Lee et al. further discloses the method where the total number of VMLA registrations are minimized while ensuring that the load on every VMLA in the service area is less than the limit. A KL graph algorithm is used to find the optimal boundary setting of the VMLAs by adjusting boundaries of the VMLAs until the optimal boundary setting is determined. Loading characteristics (mobility data) based on historical information and simulations are also used in determining the optimal boundary. See Col. 5, lines 61-66; Col. 7, lines 13-25 and Col. 11, lines 14-63.

Lee et al. discloses determining the "best cell", moving border cell from one of two VMLAs to the other VMLA. A determination is made as to the "best cell" and "best pair" of cells that would have the greatest positive impact and for determining balanced VMLAs. All possible beneficial combinations are considered with the optimal combination. Lee et al. goes through several iterations to meet the optimal combination, once determined, the loads for the VMLAs are determined so that the loading constraint limit is satisfied. See Col.12, line 6-Col. 13, line 39.

Therefore, Lee et al. discloses a method for determining registration areas (VMLAs) based on mobility data (loading characteristics and KL graph partitioning algorithm) where the overall cost is minimized (lesser paging load and reducing registration loading). These registration areas are determined by finding the "best cell" and "best pair" cells for swapping that will have the greatest positive impact i.e. the loading constraint limit is satisfied.

Thus, Lee et al. discloses all of the limitations claimed in amended Claim 1.